## CLAIM LISTING

1. (Currently Amended) An induction coil form comprising:

a ceramic core having an outer surface; and

a coating layer bonded to at least a portion of the outer surface of the ceramic core, which is formed of a material more easily formed to precise tolerances than silicon nitride wherein a plurality of grooves are formed into the coating layer.

2. (Original) The induction coil form of claim 1, wherein the ceramic core is cylindrical in shape and formed of a material selected from the group consisting of silicon nitride and sialon.

3. (Original) The induction coil form of claim 1, wherein the coating layer comprises a material selected from the group consisting of a thermoplastic, an epoxy, a glass-filled epoxy, and a powdered ceramic.

4. (Original) The induction coil form of claim 1, wherein the coating layer comprises PEEK.

5. (Cancelled)

6. (Original) The induction coil form of claim 1, wherein a single helical groove is formed into the coating layer.

7. (Original) The induction coil form of claim 1, further comprising an induction coil wrapped around the ceramic core.

8. (Original) The induction coil form of claim 1, wherein the ceramic core has a thermal expansion coefficient of less than about $1.8 \times 10^{-6}$ per °F in a temperature range of below 0°F to about 1400°F.

9. (Currently Amended) The induction coil form of claim 1, wherein the coating layer remains bonded to the ceramic ~~hollow~~ core in a temperature range of below 0°F to about 500°F.

10. (Original) The induction coil form of claim 1, wherein the bond between the coating layer and the ceramic core can withstand temperature cycling in the range from below 0°F to about 500°F and pressure cycling from atmospheric pressure to about 30 ksi.

11. (Currently Amended) The induction coil form of claim 10, wherein the bond between the coating layer and the ceramic ~~hollow~~ cylindrical core can withstand temperature cycling in the range from 70°F to 500°F and pressure cycling from 0 to 25 ksi.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (New) An induction coil form comprising:

a ceramic core having an outer surface; and

a coating layer bonded to at least a portion of the outer surface of the ceramic core, which is formed of a material more easily formed to precise tolerances than silicon nitride wherein the ceramic core has a thermal expansion coefficient of less than about $1.8 \times 10^{-6}$ per °F in a temperature range of below 0°F to about 1400°F.

24. (New) The induction coil form of claim 23, wherein the ceramic core is cylindrical in shape and formed of a material selected from the group consisting of silicon nitride and sialon.

25. (New) The induction coil form of claim 23, wherein the coating layer comprises a material selected from the group consisting of a thermoplastic, an epoxy, a glass-filled epoxy, and a powdered ceramic.

26. (New) The induction coil form of claim 23, wherein the coating layer comprises PEEK.

27. (New) The induction coil form of claim 23, wherein a plurality of grooves are formed into the coating layer.

28. (New) The induction coil form of claim 23, wherein a single helical groove is formed into the coating layer.

29. (New) The induction coil form of claim 23, further comprising an induction coil wrapped around the ceramic core.

30. (New) The induction coil form of claim 23 wherein the ceramic core has a thermal expansion coefficient of less than about $1.6 \times 10^{-6}$ per °F in a temperature range of below 0°F to about 750°F.

31. (New) The induction coil form of claim 23, wherein the coating layer remains bonded to the ceramic core in a temperature range of below 0°F to about 500°F.

32. (New) The induction coil form of claim 23, wherein the bond between the coating layer and the ceramic core can withstand temperature cycling in the range from below 0°F to about 500°F and pressure cycling from atmospheric pressure to about 30 ksi.

33. (New) The induction coil form of claim 32, wherein the bond between the coating layer and the ceramic cylindrical core can withstand temperature cycling in the range from 70°F to 500°F and pressure cycling from 0 to 25 ksi.